

List of All Chemicals

P *Pinus elliottii* (Pinaceae)

Common name(s)

Slash Pine

How used

Medicinal

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Plant Part	Low PPM	High PPM	StdDev	*Reference
ABIETIC-ACID	Resin, Exudate, Sap	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (3)					
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Protisticide					
Schistosomicide					
BETA-PINENE	Leaf	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (13)					
Allergenic					
Antiinflammatory					
Antiseptic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Antispasmodic					
Candidicide					
FLavor FEMA 15-600	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Herbicide	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.				
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Irritant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.				
Perfumery	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry				
Pesticide					
Spasmogenic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.				
Transdermal					
BORNEOL	Leaf	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (35)					
(-)Chronotropic 29 ug/ml	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.				
(-)Inotropic 29 ug/ml	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.				
Allelochemic					
Analgesic					
Antiacyetylcholine	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.				
Antibacterial MIC=125-250 ug/ml					
Antibronchitic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antiescherichic MIC=125 ug/ml					
Antifeedant					
Antiinflammatory					
Antitotic					
Antipyretic					
Antisalmonella MIC=125 ug/ml					
Antispasmodic ED50=0.008 mg/ml					
Antistaphylococic MIC=250 ug/ml					

ug/ml				
CNS-Stimulant	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.			
CNS-Toxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Candidicide MIC=250 ug/ml				
Choleretic				
FLavor FEMA<1	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry			
Fungicide				
Hepatoprotective				
Herbicide IC50=470 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.			
Herbicide IC50=470 uM	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.			
Inhalant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Insect-Repellent				
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.			
Irritant	Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp.			
Myorelaxant	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.			
Nematicide MLC=1 mg/ml	Shoyakugaku Zasshi, 44: 183.			
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Pesticide				
Sedative	Medline (post 1990 searches filed in my computer)			
Tranquilizer				

CADINENE	Leaf	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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Activities (4)

Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
FLavor FEMA 400-4,000	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	

CAMPHENENE	Leaf	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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Activities (9)

Allelopathic	Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands.
Antilithic?	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antioxidant	Jim Duke's personal files.
Expectorant	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
FLavor FEMA 15-175	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Hypocholesterolemic?	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	
Spasmogenic	Fitoterapia No.59-1984.

CREOSOL	Plant	--	--	*
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Activities (2)

Expectorant	
FLavor FEMA 0.02-20	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

DEHYDROABIETIC-ACID	Resin, Exudate, Sap	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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Activities (5)

Allergenic	Mitchell, J. and Rook, A.J. 1923. Botanical Dermatology: plants and plant products injurious to the skin. Vancouver: Greengrass, 1979. xiii, 787 p.: ill.
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	
Protisticide	
Schistosomicide	Farnsworth, N.R. and Cordell, G.A. A Review of Some Biologically Active Compounds Isolated From Plants as Reported in the 1974-1975 Literature. J. Nat. Prod. 39: 420, 1976.

Sap

Analyses

Activities (7)

Allergenic					
Antibacterial	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Antiviral	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Expectorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Irritant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Pesticide					
Sedative	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				

EO

Resin, Exudate, Sap

200000.0

250000.0

1.23

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EO

Leaf

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3000.0

-0.75

CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

GUAIACOL

Plant

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Activities (18)

Anesthetic					
Antibacterial 8,000 ppm	Valnet, J. 1982. The Practice of Aromatherapy. Translated from the 1980 French Edition by Robin Campbell and Libby Houston. Destiny Books, New York. 279 pp.				
Antidermatitic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antieczemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antiesophagitic	Martindale's 29th				
Antiseptic	Martindale's 29th				
Antituberculic					
Cardiodepressant	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.				
Cardiotonic					
Dermal	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.				
Emetic	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.				
Expectorant 0.3-0.6 ml/man	Martindale's 28th				
FLavor FEMA <1-1	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry				
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Irritant					
Pesticide					
Prostaglandin-Synthesis-Inhibitor IC50=57 uM	Alanko, J., et al. 1999. Modulation of Arachidonic Acid Metabolism by Phenols: Relation to their Structure and Antioxidant/Prooxidant Properties. Free Radical Biol Med, 26(1/2): 193-201.				
Transdermal	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.				

ISOPIMARIC-ACID

Resin, Exudate, Sap

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CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (2)

Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	

L-ALPHA-PINENE

Resin, Exudate, Sap

123000.0

189000.0

Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.

L-BETA-PINENE

Resin, Exudate, Sap

42400.0

85000.0

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METHYLCREOSOL

Plant

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NEOABIETIC-ACID

Resin, Exudate, Sap

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CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (4)

Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	
Protisticide	
Schistosomicide	

PALUSTRIC-ACID

Resin, Exudate, Sap

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CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

PHENOL

Plant

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ACTIVITIES (2)

Analgesic	Martindale's 29th
Anesthetic	
AntiMS	Martindale's 29th
Antibacterial	
Antihemorrhoidal	Martindale's 28th
Antihydrocoele	Martindale's 29th
Antiincontinence	Martindale's 29th
Antionychogryphotic	Martindale's 28th
Antitotic	Martindale's 28th
Antioxidant	Jim Duke's personal files.
Antiprostatic	Martindale's 29th
Antipyrivetic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antiseptic	
Antisinusitic	Martindale's 28th
Antispastic	Martindale's 28th
Antiviral	Martindale's 29th
Antiwrinkle	Martindale's 28th
CNS-Depressant	Martindale's 29th
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic	
Emetic	Martindale's 29th
Fungicide	Martindale's 29th
Hemolytic 5,400 ppm	Martindale's 28th
Pesticide	
Rodenticide LD50=1,040 cut rat	
Vasodilator	

PIMARIC-ACID	Resin, Exudate, Sap	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
SANDARACOPIMARIC-ACID	Plant	--	--	*

Activities (2)

Juvabional	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	

TOLUENE	Plant	--	--	*
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Activities (1)

Encephalopathic	Martindale's 29th
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TRANS-COMMUNIC-ACID	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
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WATER	Resin, Exudate, Sap	--	20000.0	-1.51	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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XYLENE	Plant	--	--	*
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